Clinical Notes and Case Reports

FECAL VOMITING OF RARE ORIGIN

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Vomiting is a most important symptom. Persistent vomiting, though periodic in type, calls for a most thorough investigation. Fecal vomiting usually, but not always, bespeaks obstructive symptoms. For example, this patient exhibited fecal vomiting as his chief symptom, but he did not have complete obstruction. His was a vicious circle of stomach and jejunum with a fistula leading up from the colon into the latter.

CASE REPORT

No. 4986: Male, age 29. Admitted November 20, 1923, complaining of "vomiting at weekly intervals, frequent diarrhea and eructations of gas without colic."

History in Brief—Following a truck accident in January, 1919, while in the A. E. F. service, he was sent to the hospital for minor injuries, and while there a thyroidectomy was performed and he was then invalided to the U. S. A. and discharged in July, 1919, on a "SCD" (Surgeon's Certificate of Disability). One week after his discharge from the army he developed "stomach symptoms." A gastro-enterostomy was performed for "peptic ulcer," followed by symptomatic relief until July, 1923.

Physical examination revealed a tall undernourished weak man with pale skin and cyanotic lips and fingertips, and edema under the eyes; pyorrhoea-alveolaris and multiple dental abscesses. Chest expansion was poor, the diaphragm high; the abdomen prominent with a small amount of ascitic fluid present; an incisional scar five inches long in upper right rectus with hernial protrusion.

An x-ray gastro-intestinal series showed an outline of the transverse and descending colon in the "immediate" plate. The roentgenologist, R. C. Shawhan, M. D., considered this was due to previous medication and returned the patient to the ward, advising him to return later. The ward record showed, however, that this patient had not received any medication which would cause an "opaque shadow."

The laboratory reported "occult blood" present in the stools on three examinations: A basal metabolic rate of 35; RBC 4,500,000; haemoglobin 74 per cent.

Patient was examined on May 8, 1924, by Medical Consultant John W. Shuman of Los Angeles, who reported as follows: "The gastro-enterostomy has not only served its purpose, but has become a menace. Advise that it should be taken down for this will return the food to its usual route, eradicate the ventral hernia, and give the surgeon an opportunity to clear up any pathological condition that may exist."

His progress record showed, in spite of medical management, a continuous loss of weight, frequent night sweats, frequent attacks of diarrhea, and vomiting and neuritic pains with paraesthesia all over the body. On July 10, without complaint of previous nausea, he vomited a quart and a half of feces containing hard scybalous masses.

Patient was referred to Colonel James A. Mattison, Chief Surgeon, for further consideration from the standpoint of surgical intervention. After reviewing the findings thoroughly, he decided, in view of the fact that the patient had myocardial degeneration with considerable resulting ascites, that the patient was too poor a risk for surgical intervention. He advised that it would be necessary to cut off the old gastro-enterostomy and probably do a partial resection of the stomach and do a Polya operation. Fecal vomiting again occurred on July 20, and thereafter at frequent intervals up to the time of death, August 8, 1924.

Autopsy was performed August 10, and showed the celiotomy scar attached to the side of the gastro-enterostomy by a thin strand of adhesions. The stomach was greatly dilated, the pylorus infiltrated. The transverse colon was firmly attached to tissues involved in the gastro-enterostomy. The pylorus would barely admit a pencil, and, upon opening it, a depressed puckered scar of a healed posterior pyloric ulcer was noted. The first portion of the jejunum was attached to the posterior surface of the stomach. The gastro-enterostomy orifice was sufficiently large and showed absence of ulceration. The jejunum below the orifice was convoluted and attached to the transverse colon anteriorly. The colon lay between it and the stomach and a fistula wide enough to admit the finger was found between the jejunum and the colon at a point 1 c. m. below the gastro-enterostomy. The portion of the transverse colon immediately proximal to the gastro-enterostomy was infiltrated and stenosed so it would admit a finger with difficulty (See Figure 1 and 2.)

Other findings were: Chronic cholecystitis with adhesions to the transverse colon; chronic appendicitis; 500 cc. of amber colored ascitic fluid; high diaphragm; partial atalectasis of the lower lobe of the lung.

Points of Interest—The cause of fistula between colon and jejunum is problematical. It was definitely apparent that nothing short of cutting off the old gastro-enterostomy, re-establishing the continuity of the colon and doing a Polya or some similar operation, would have been necessary to have saved this patient. It is very evident, however, that patient was too poor a surgical risk to even consider such a procedure.

ULCERS OF THE BLADDER

By E. HAROLD KING, M. D., *Los Angeles*

Ulcers of the bladder may be due to injury, tuberculosis, gonorrhea, cystitis, lues, or malignant tumor. A solitary punched-out ulcer is a common type in anemic women. The ulcers may be single or multiple and perforation may occur into the prevesical space or the peritoneal cavity. The types of bladder ulcer I have seen mostly have been gonorrheal in origin. These ulcers have presented symptoms of severe pain, with bloody, turbid urine and have been slow to respond to treatment except when fulgurated. Most of the patients have refused fulguration.

It is a known fact that astounding results have been obtained from the administration of parathyroid substance in varicose ulcers of the leg and ulcers of the rectum. How this endocrine substance acts has not as yet been fully determined. It is claimed that not only does parathyroid substance regulate calcium metabolism, but also stimulates general cellular nutrition. I have used parathyroid substance, combined with calcium lactate in three cases of ulcer of the bladder and cite these cases to show the gratifying results obtained.

CASE REPORT

CASE 1. Adult male, age 34, complained of vesical tenesmus, blood in the urine, and pain during the act of urination. Cystoscopic examination revealed a large ulcer of the bladder. Ureteral catheterization showed negative urines from the kidneys. Patient had gonorrhea eighteen months ago. Treated at office with vesical irrigation of sterile distilled water until the water came away clear. This was followed by the instillation of one ounce of emulsion of silver iodide which was retained in the bladder for several hours. The accompanying cystitis was relieved, but the patient still complained of pain at the end of urination after ten days' treatment. He was admitted to hospital, put to bed, fed on green vegetables, large quantities of water and orange juice. The medical treatment consisted of soda bicarbonate grains 30, along with parathyroid substance gr. 1/20th and calcium lactate, grains 5, every three hours. At the end of six days all urinary symptoms had disappeared. A cystoscopic examination made one month later showed the ulcer had cleared up.

CASE 2. Adult female, age 26, complained of pain over right kidney and bladder. Fever ranging from 100 to 104 for over one week. Gonococcic infection three months previously. Examination showed a profuse vaginal discharge and smear confirmed the diagnosis of gonorrhea. This patient was admitted to hospital and given the same line of treatment as outlined in Case 1. Within five days the temperature was down to normal and all bladder symptoms had cleared up. This patient remained in hospital seven days. A few days later she was put

under ether anesthesia, a cystoscopic examination showed the ulcer of the bladder had healed and to clear up the specific endometritis the uterine cervix was dilated, the endometrium and cervical canal were swabbed with equal parts of carbolic acid and iodin and the vaginal walls treated in the same manner. An iodoform gauze pack (5 per cent) was introduced into the vagina and removed after twenty-four hours. This patient is now free from all bladder symptoms and has no vaginal discharge.

CASE 3. Adult male, aged 54. Complained of vesical pain and painful micturition for two months. Wassermann four plus. Given course of Salvarsan and mercury, but the bladder symptoms were not relieved. The cystoscope revealed an ulcer of the bladder just outside the trigone. This patient would not consent to fulguration of the ulcer, but did go to bed and followed the dietetic and medical treatment outlined. He is now free from all pain after three weeks' of treatment.

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SIGNIFICANCE OF THE COLLOIDAL PROPERTIES OF GELATIN IN SPECIAL DIETARIES

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An examination of the dietetic possibilities of gelatin from a chemico-physiological standpoint reveals a number of properties which would make this unique food product a valuable addition to special dietaries, particularly those in which milk forms the sole or major portion. In such dietaries gelatine functions as a protein food to the extent of the utilization of its amino acids by the body, and in addition possesses marked activity as a protective colloid and emulsifying agent. Practical observations in clinics and hospitals, as well as experimental work in laboratories, indicate that these characteristic properties of gelatin as a colloidal substance exert a most significant influence in promoting digestion and absorption of certain types of foods.

The importance of this colloidal activity of gelatin, where fed in conjunction with dairy products, has been demonstrated by the writer in feeding tests with the albino rat. Shortly after weaning, the young from several litters were divided into two groups; one group received pasteurized whole milk as its sole diet, the other pasteurized whole milk containing 1 per cent of gelatin. Observations, extending over a period of six months, showed that the growth and physical well-being of the group fed on gelatinated milk was markedly superior to animals fed on the plain milk diet. The increased growth was accomplished on smaller food consumptions. In fact, during the early growth period for equivalent gains in body weight the animals on gelatinated milk consumed about 23 per cent less food than the group on plain milk.

Another striking illustration is found in the writer's experiments with ice cream. Over a period of seven weeks it was observed that a group of rats fed on an exclusive diet of ice cream, containing 1 per cent of gelatin, gained no less than 25 per cent more in body weight than was the case with their brothers and sisters whose diet was plain ice cream. For equivalent gains in body weight, the food consumptions of the group fed on the gelatin-containing ice cream were much less. Smaller percentages of gelatin resulted in proportionate improvements. It is important to note in this connection that the better nutritional status of the gelatin ice cream group afer a number of months on the diet was reflected in continued health and growth, and in increased bone development and reproduction in several cases.

It should not be presumed that the observed improvements of the dairy products are due entirely to the added protein value of the gelatin, but possibly more to the protective colloidal and emulsifying effects that it confers. The digestive processes are essentially colloidal phenomena, whereby fats, carbohydrates, and proteins are ingested in the colloidal conditions and changed by the various enzymes to degradation products capable of absorption by the body. To accomplish the formation of these simpler substances, the enzymes must come into intimate contact with the food particles. If, perchance, the food particles are present as large tough masses, as is the case with cow's milk coagulating under the influence of the hydrochloric acid and rennin in the human stomach, the contact surface of the enzymes with the food is limited and gastric digestion is delayed or impared. Various specialists have described experiments in vitro as well as with humans which show that the coagulation of cow's milk by acid and rennin is prevented or modified in character in the presence of relatively small amounts of gelatin. This effect is spoken of as protective colloidal action, and it is interesting to note that gelatin is one of the most efficient of all human protective agents. Gelatin is also a good emulsifying agent and it is quite probable that it aids the secretions of the alimentary appartus in the emulsification of fats.

In discussing the digestibility of milks, Chapin says that those animals whose stomachs form the larger percentage of the digestive tract and their digestion is largely gastric produce milks that form tough curds, as for example, the cow. In contrast is the human, whose stomach forms only about 20 per cent of the digestive tract. Human milk curdles in light flocculent masses. It has been pointed out by Alexander that human milk contains a natural protective protein in large amount, which is present in small amount in cow's milk. It would seem, that the addition of such a protective agent as gelatin to cow's milk would make it particularly suitable for infants, and such has been found to be the case, as is testified to in pediatric literature.

In like manner, gelatin has been shown to be of value in other dietaries composed largely of dairy products. For example, Hawk reports that the addition of gelatin to the milk-egg diets of tuberculosis patients resulted in decided nutritional improvements with the majority of the cases tried.

The experiments described suggest the advantages that are to be derived by the utilization of gelatin in other dietaries. The protective colloidal and emulsifying action of gelatin promotes the digestion and absorption of various types of foods. It is also misleading to assume that gelatin as a protein is of insignificant food value.

Feeding tests by McCollum and by Osborne and Mendel have shown that, with certain cereal grains, gelatin is exceptionally well utilized, presumably through its high content of the amino acid lysine. Also, with milk proteins gelatine is of value, as has been found by Sure. In combination with milk in the liquid form, it is believed, however, that the colloidal properties are of greater significance.

[EDITOR'S NOTE: Announcements regarding a well-known brand of gelatin are found monthly in our advertising pages.]

Shoe Dye Poisoning—C. W. Muehlberger, Madison, Wis. (Journal A. M. A., June 27, 1925), has found a total of forty-seven cases of poisoning from shoe dyes reported in the literature. Of these, twenty-five resulted from dyes containing nitrobenzene, and twenty-one from dyes containing anilin. The toxic substance responsible for one case was not stated. One of the cases of nitrobenzene poisoning resulted fatally. All the reported cases of anilin poisoning from shoe dyes are from European sources, while all those of nitrobenzene poisoning are from the United States. The nine cases reported by Muehlberger are the first of anilin poisoning from shoe dyes to be reported in the United States. The outstanding symptoms of poisoning exhibited in these cases are: marked cyanosis, weakness and vertigo followed by rapid pulse, headache, vomiting, somnolence and chills. The only treatment required is the removal of the shoes and rest in bed until the cyanosis disappears. Oxygen inhalation is without effect on the cyanosis. Digitalis medication is without avail and is not indicated. The chemical analyses of four commercial preparations of black shoe dye are given. All these were found to contain either nitrobenzene or anilin. The only way that this type of poisoning can be adequately prevented is by state or national health regulations prohibiting the manufacture and sale of toxic shoe dyes. It is recommended that nitrobenzene and anilin be replaced by nontoxic solvents in order to eliminate the danger of poisoning.